

REMARKS/ARGUMENTS

Applicants' representative would like to thank Examiners Nguyen and Kopec for the courteous and helpful discussion of the issues in the above noted application on August 28, 2007. The above amendments and following remarks summarize and further expand on the content of that discussion.

Claims 1-8 are active in the present application. Claims 5-7 have been amended to correct minor misspelling errors, as noted by the Examiner. Claim 8 has been amended to be drawn to a sun protection composition comprising the pyrogenically prepared zinc oxide of claim 1. This amendment is supported by the specification at pages 10 and 13. No new matter has been added by these amendments.

The present invention relates to a pyrogenically prepared zinc oxide powder having a BET surface area of from 10 to 200 m<sup>2</sup>/g, wherein the zinc oxide powder

- it is in the form of aggregates,
- the aggregates being composed of particles having different morphologies,  
and
- 0-10 % of the aggregates being in a circular form,
- 30-50 % of the aggregates being in an ellipsoidal form,
- 30-50 % of the aggregates being in a linear form,  
20-30 % of the aggregates being in a branched form.

Thus the powder is made of aggregates, wherein the aggregates have different forms within specified ranges of content. Further, the aggregates themselves are formed of particles having differing morphologies. Applicants have found that zinc oxide powders of the present invention provide significantly better combination of transparency and UV absorption than zinc oxide powders that do not meet the aggregate type ranges specified.

Claims 1-8 stand rejected under 35 U.S.C. 103 over Kogoi et al in view of American Zinc, and with respect to claim 4 further in view of Kim et al and Myerson et al. None of the cited references, either alone or in combination, is sufficient to suggest the present invention and all of its requirements.

Kogoi discloses the preparation of ultrafine zinc oxide particles with the stated goal being the preparation of substantially isotropic primary particle shapes (see Abstract). As noted by the Examiner there is no disclosure or suggestion within Kogoi of zinc oxide powder having the required aggregate forms of the present invention. While the Examiner relies on the disclosure by Kogoi that conventional processes tend to make zinc oxide powders where the primary particles are not uniform in shape and particle size and readily coagulate to form huge secondary particles, this disclosure is also insufficient to suggest a zinc oxide powder according to the present invention, which has particles of different morphologies, which form aggregates of different types, in the specified percentages.

American Zinc cannot overcome this deficiency of Kogoi. In particular, while American Zinc teaches essentially the conventional process described by Kogoi, which produces zinc oxide primary particles having different shapes and sizes, there is nothing with American Zinc to suggest a modification of Kogoi to arrive at the present invention zinc oxide powder. Particularly, there is no disclosure or suggestion within either reference regarding how to achieve a zinc oxide having the required surface area, with the particles being of different morphologies, and being in the form of aggregates of various types within the stated percentage ranges. Accordingly, the references cannot render the present invention obvious.

Even though Applicants do not agree that these references rise to the level of prima facie obviousness when combined, Applicants provide herewith a Rule 1.132 Declaration (the executed version of which will be provided immediately upon receipt in Applicants'

representative's office) showing that the present invention zinc oxide has better characteristics than a comparative example that does not meet the aggregate type requirements of the present invention, for use in a sun protection composition. In particular, the zinc oxide of Example 3 (solid line of graph in Declaration) of the present application was compared to the zinc oxide of Example 5 (comparative Example, dashed line of graph) of the present application. When the UV-absorption was normalized such that the powders have the same absorption at 380 nm, it becomes clear that the zinc oxide of the present invention provides better sun protection than the comparison, due to the present invention zinc oxide having higher extinction as the wavelengths approach the visible range. This shows that having the aggregate forms be within the specified types and percentage ranges provides a better zinc oxide, particularly with respect to use in sun protection compositions. Accordingly, even if the Examiner maintains that the cited references render the present invention obvious, these results are sufficient to show the criticality of the present invention zinc oxide aggregate forms and ranges as claimed. Therefore, these data are sufficient to rebut the Examiner's assertion of obviousness and the rejection should be withdrawn.

Neither of the Kim et al or Myerson et al references overcome these deficiencies, as neither teaches or suggests the requirements of the present invention, or how one should modify either of Kogoi or American Zinc to arrive at the present invention. As such, the rejections should be withdrawn.

The objection to claims 5-7 has been obviated by the present amendments.

The rejection of claim 8 under 35 U.S.C. 112 and 35 U.S.C. 101 has also been obviated by the present amendment.

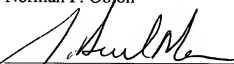
Claims 1 and 4 stand provisionally rejected for obviousness type double patenting over claims 1, 5, 6, and 10 of copending application 11/039,871. The Examiner is kindly requested to follow the procedures set forth in the MPEP at MPEP 800 (I)(B)(1) which states

that if provisional obviousness type double patenting is the only remaining rejection in an application, (and the other application is also still pending), the provisional rejection should be withdrawn in the earlier filed application (which would be the present case) and that application allowed to proceed to allowance, while making an obviousness type double patenting rejection in the other application, **if such a rejection is appropriate**. Accordingly, the Examiner is requested to withdraw this rejection in the present application to permit the present application to proceed to allowance.

Applicants submit that the application is now in condition for allowance and early notification of such action is earnestly solicited.

Respectfully submitted,

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